

Patent claims

- 5 1. Use of water-insoluble linear poly-alpha-1,4-D-glucans as resistant starch (RS).
2. Use according to claim 1 characterised in that the water-insoluble linear poly-alpha-1,4-D-glucans were obtained by the reaction of an aqueous saccharose solution with an enzyme with the enzymatic activity of an amylosucrase.
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3. Use according to claim 2 characterised in that the reaction of the aqueous saccharose solution is carried out with an enzyme with the enzymatic activity of an amylosucrase *in vitro*.
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4. Use according to claim 2 characterised in that the reaction of the aqueous saccharose solution is carried out with an enzyme with the enzymatic activity of an amylosucrase *in planta*.
- 20 5. Use according to one of the claims 1 to 4 characterised in that the water-insoluble linear poly-alpha-1,4-D-glucans exhibit an RS content determined by the method of Englyst et al. of more than 70 wt.%.
- 25 6. Use according to one of claims 1 to 5 characterised in that the water-insoluble linear poly-alpha-1,4-D-glucans exhibit a DSC peak temperature of between 95 °C and 125 °C.

7. Use according to one of the claims 1 to 6 characterised in that the water-insoluble linear poly-alpha-1,4-D-glucans have a mean molecular weight of 1×10^2 g/mol to 10^5 g/mol.
- 5 8. Use according to one of the claims 1 to 6 characterised in that the water-insoluble linear poly-alpha-1,4-D-glucans have a mean molecular weight of 1×10^3 g/mol to 3×10^4 g/mol.
- 10 9. Use according to one of the claims 1 to 6 characterised in that the water-insoluble linear poly-alpha-1,4-D-glucans have a mean molecular weight of 2×10^3 g/mol to 1.2×10^4 g/mol.
- 15 10. Use according to one of the claims 1 to 9 characterised in that the water-insoluble linear poly-alpha-1,4-D-glucans were not retrograded.